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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,991

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EXAMINER

MAI, HAO D

ART UNIT

PAPER NUMBER

3732

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DELIVERY MODE

10/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,991	Applicant(s) TAKAHASHI, ATSUSHI	
	Examiner HAO D. MAI	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/06/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 3-8, and 10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Deady (2,265,804) in view of Politzer et al. (2,804,728).**

Regarding claims 1, Deady discloses a device comprising: a cup-shaped core (formed by nozzle 10 and pocket 16) having a cylindrical profile, an exterior wall, and a hollow interior region; a shaft 13 containing a connecting means 7 capable of connecting the device to the dental rotary instrument and capable of avoiding vibration around a rotation axis of the core during rotation; a hydrophilic sponge 12 covering the exterior wall of the core; and a latch plate (clamp 15) fixing the hydrophilic sponge to the core (Figs. 1-2). The sponge is inherently capable of being immersed in water prior to operation.

Note that the recitation "a prophylaxis chip, mounted on a top..." has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. *See In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Furthermore, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not

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differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. In this case, merely calling/claiming a prophylactic chip in the preamble is more or less an intended use and does not convey structural limitations.

Deady discloses the invention substantially as claimed except for the hydrophilic sponge being a grindstone sponge comprising a grindstone therein (claim 1). It is well known in the art of polishing and cleaning that grindstone and/or abrasive grains are embedded into a sponge to clean and polish surfaces. For example, Politzer et al. disclose a sponge 10 having abrasive material 14, e.g. powdered or ground pumice sand, emery, carborundum, etc., embedded therein (Fig. 1; column 2 lines 8-24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Deady by embedding a grindstone, i.e. abrasive material such as carborundum, into the hydrophilic sponge in order to provide the sponge an abrasive surface that effectively cleans and polishes surfaces. In the case of cleaning the skin, such finely grounded or powdered abrasive material would effectively clean and exfoliate the skin.

As to claims 3-8 and 10, Deady discloses the core comprising water and/or soap, which inherently is a foaming and/or coating agent, which is to be discharged through the pores 14 of core 13 (Figs. 1-4; column 1 lines 60-64). The exterior portion 16 of the core is a nonwoven, hydrophilic, flexible, three-dimensionally, continuous, and porous film capable of conducting a solution (column 2 lines 34-48). Note that the core 13 is directly connected to shaft H.

3. Claim 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deady in view of Politzer et al., and further in view of Hirota et al. (JP 2002053469).

Deady/Politzer discloses the invention substantially as claimed except for the grindstone being specifically a grindstone of $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$.

Hirota et al. disclose a composition containing $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$ for rubbing onto the skin (see enclosed Derwent description). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Deady/Politzer by utilizing such particular grindstone of $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$ embedded in the sponge in order to effectively clean and exfoliate the skin, while enhancing immunity as taught by Hirota et al.

4. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over St. Cyer (5,052,840) in view of Politzer et al. (2,804,728).

St. Cyer discloses a device (refer to Figs. 4-5) comprising: a cup-shaped core 110 having a cylindrical, cupped, or disk profile, an exterior wall and a hollow interior region; a shaft 14 (or best shown as 214 in Fig. 6-8) having a connecting means; a hydrophilic sponge 126 covering the exterior wall of the core 110; and a latch plate 120 fixing the hydrophilic sponge to the core. Note that the sponge is inherently capable of being immersed in water prior to operation.

St. Cyer however is silent to the hydrophilic sponge being a grindstone sponge comprising a grindstone therein (claim 1). It is well known in the art of polishing and cleaning that grindstone and/or abrasive grains are embedded into a sponge to clean and polish surfaces. For example, Politzer et al. disclose a sponge 10 having abrasive material 14, e.g. powdered or ground pumice sand, emery, carborundum, etc., embedded therein (Fig. 1; column 2 lines 8-24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify St. Cyer by embedding a grindstone, i.e. abrasive material such as carborundum, into the hydrophilic sponge in order to provide the sponge an abrasive surface that effectively cleans and polishes surfaces.

As to claim 9, note that the sponge 126 is folded over an edge of the wall 108 into the hollow interior region of the core 110 and gripped by the latch plate 120 (Fig. 5).

Response to Arguments

5. Applicant's amendments/arguments filed 07/06/2009 have been fully considered but are not persuasive. Applicant argued that the recited preamble "prophy chip mounted on top of a dental rotary instrument..." should be given patentable weight. However, the examiner maintains that **there are no structural limitation(s) conveyed in "prophy chip" or "dental rotary instrument" as recited in the preamble**. Interpreted as broadly as such terms reasonably allow, the device 12 of Deady is equivalent to the claimed "prophy chip"; and either hose 6 or faucet 5 or both are equivalent to the claimed "dental rotary instrument". Note that hose 6 or faucet 5 can be rotated manually and can be used for dental purposes.

Applicant further argued that Deady's shaft 13 does not contain the connecting means 7 since there is a hose 6 there between. Note that if hose 6 is considered to be the dental rotary instrument, then the shaft 13 must have some type of connecting means connecting the shaft 13 and hose/dental instrument 6 as shown in Figure 1. Alternatively, if the faucet 5 is considered to be the dental rotary instrument, then both the handle 13 *and* hose 6 are considered to be equivalent to the claimed "shaft" containing a connecting means 7.

Applicant further argued that Deady and Hirota are not analogous prior art. It is maintained that Deady and Hirota are analogous arts since Deady's washing device can be used for washing skin and Hirota's composition is for applying onto the skin. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Deady/Politzer by utilizing such particular grindstone of $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$ embedded in the sponge in order to effectively clean and exfoliate the skin, while enhancing immunity as taught by Hirota et al.

As for Applicant's arguments regarding St. Cyer, it is also maintained that St. Cyer's device being mounted onto handle 16 which can be considered to be equivalent to the claimed

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"dental rotary instrument" since the handle 16 can be rotated manually and the device can be used for dental purposes such as cleaning a large animal's teeth.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAO D. MAI whose telephone number is (571)270-3002. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Hao D Mai/
Examiner, Art Unit 3732**

/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732